## **REMARKS**:

In the Final Office Action dated September 7, 2004, the Examiner rejected all claims based on combinations of Kapur, Inagaki, Hattori, and has referenced Umeda in a facsimile on September 9, 2004. Applicant has amended claim 33 so as to be allowable over the prior art and submits the following arguments for Examiner's consideration.

Claim 33 has been amended to include a cavity formed in the rotor as an element. This element includes the limitations that the cavity extends from a surface of the rotor inwardly, the cavity is disposed generally parallel to the axis of the rotor, extends inwardly from a surface which is perpendicular to the axis of the rotor, and is isolated from the blade/vane.

Kapur does not show such a cavity, having only the slots for the rotor blades. Umeda has cavities formed in the rotor, but the cavities extend completely through the rotor to form a passage, and are not generally parallel to the rotor axis. Umeda also has combustion chamber cavities which extend inwardly from the side of the rotor, but these extend perpendicular to the axis of the rotor and do not extend inwardly from a surface which is perpendicular to the axis of the rotor. Additionally, Umeda is an internal combustion engine and one would not look to Umeda to design cavities for a vacuum pump. Hattori teaches cavities which are generally parallel to the axis of the rotor, but these cavities are not open to a surface of the rotor. The cavities are completely sealed within the rotor. Inagaki does not teach the use of cavities in the rotor separate from the blade slots.

Applicant has also amended claim 33 to remove some grammatical problems and make the claim language more consistent. Applicant has amended claim 34 to require that the cavity form a single opening. Applicant believes that claim 93 is independently patentable, as it

BATEMAN IP LAW GROUP 4 TRIAD CENTER, SUITE 825 P.O. BOX 1319 SALT LAKE CITY, UTAH 84110 requires two cavities with a wall separating the cavities, the wall being transverse to the axis of

the rotor. The prior art does not show such a dividing wall transverse to the axis of the rotor.

Applicant believes that claim 33, and thus all of the claims are allowable, and requests

that the Examiner enter the amendment and allow the now pending claims. Should the Examiner

have concerns with the preceding amendment, it is requested that she contact Applicant's

attorney, Randall B. Bateman, at (801) 533-0320 so that any concerns may be resolved. The

Commissioner is hereby authorized to charge any amount owing for this case or to credit any

overpayment to Account No. 502720.

Sincerely,

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